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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,601	01/26/2005	Akira Imai	4034-64	3444

23117 7590 11/28/2007  
NIXON & VANDERHYE, PC  
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ARLINGTON, VA 22203

EXAMINER
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CHUNG, DAVID Y

ART UNIT	PAPER NUMBER
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2871

MAIL DATE	DELIVERY MODE
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11/28/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/522,601	<b>Applicant(s)</b> IMAI ET AL.	
	<b>Examiner</b> David Y. Chung	<b>Art Unit</b> 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2-12 and 16-30 is/are pending in the application.
- 4a) Of the above claim(s) 16-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>17 September 2007</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claims 2-12 rejected under 35 U.S.C. 103(a) as being unpatentable over Hamagishi et al. (JP 09-050019) in view of Sobue et al (U.S. 6,143,450).**

As to claims 2 and 8, Hamagishi discloses a stereoscopic display having a parallax barrier as shown in figure 2. In figure 2, substrate 1 comprises a parallax barrier 6 on one surface and a black matrix 4 having pixel openings 3 formed on the opposing surface. Hamagishi discloses that the openings 6a formed in the parallax barrier correspond to the pixel openings formed in the black matrix. See paragraph 0047.

Hamagishi does not disclose forming an alignment mark. Sobue discloses forming an alignment mark of the same material as the black matrix as shown in figures 1A and 1B. Note the alignment mark 3 and black matrix 2. Sobue discloses forming the alignment mark and black matrix of a metal film such as a chromium film (column 4, lines 1-14), or a black pigment containing resin (column 6, lines 43-51). Sobue

discloses that drawing alignment is performed using the alignment mark in forming the color filter. See column 2, lines 39-45. Sobue teaches that the disclosed alignment mark allows drawing alignment to be performed with high precision in manufacturing the color filter substrate, resulting in high-reliability. See column 10, lines 22-32. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to form an alignment mark as disclosed by Sobue because of the resulting high-reliability.

As to claim 3, Sobue discloses that forming the color filter involves locating the alignment mark and aligning the ink jet head 23 with the substrate according to the alignment mark.

As to claim 4, Hamagishi discloses forming the parallax barrier 6 with a black resist or a chromic oxide. See paragraph 0046. Sobue discloses forming the alignment mark of a black resin. See column 6, lines 43-51.

As to claim 5, Hamagishi discloses forming the parallax barrier 6 with a chromic oxide or black resist. However, for the purpose of forming a parallax barrier, it was well known that using a low reflective metal such as chromium was an art recognized equivalent. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to form the parallax barrier with a low reflective metal such as chromium because it was a well known art recognized equivalent.

As to claim 6, Hamagishi does not disclose a color filter in the pixel openings of the black matrix layer 4. However, it was well known and obvious to form a color filter layer in order to create a full color display. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to form a color filter layer in the pixel openings of the black matrix layer in order to create a full color display.

As to claim 7, Hamagishi discloses a black matrix 4 formed on the surface of the substrate opposite the parallax barrier 6. The black matrix 4 can be considered the first layer.

As to claims 9 and 11, figure 2 of Hamagishi shows a second substrate 2 secured to the first substrate 1. Hamagishi discloses that the device is a liquid crystal panel. Therefore, a liquid crystal material is disposed between the first and second substrates.

As to claim 10, Hamagishi does not disclose dividing the panel into a plurality of smaller panels. However, this was a common and conventional practice since forming multiple panels at once was much more efficient. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to form multiple panels because of the increase in efficiency.

As to claim 12, figure 2 of Hamagishi shows a polarizing plate 10 disposed on the viewer-side surface of the parallax barrier 6.

### ***Response to Arguments***

Applicant's arguments with respect to claims 2-12 have been considered but they are not persuasive. Applicant has argued that the combination of references applied do not disclose an alignment mark on the same side of the substrate as the parallax barrier but instead would have led one of ordinary skill to form an alignment mark on the rear side of the substrate. However, the claim only recites that the step of providing a parallax barrier includes the step of making a first alignment mark. It does not in any way specify where that alignment mark is formed.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Y. Chung whose telephone number is (571) 272-2288. The examiner can normally be reached Monday thru Friday from 9:30 am to 6:00 pm. If successive attempts to contact the examiner are unsuccessful, the examiner's supervisor David C. Nelms can be reached at (571) 272-1787.



David Nelms  
Supervisory Patent Examiner  
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David Y. Chung  
GAU 2871  
11/24/07